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WASHINGTON, DC 20036

EXAMINER
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AUGHENBAUGH, WALTER

ART UNIT	PAPER NUMBER
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1782

NOTIFICATION DATE	DELIVERY MODE
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08/12/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

**Office Action Summary**

Application No.

10/576,414

Applicant(s)

WATANABE ET AL.

Examiner

WALTER B. AUGHENBAUGH

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 June 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Acknowledgement of Applicant's Amendments***

1. The amendments made in claim 1 in the Amendment filed June 15, 2011 have been received and considered by Examiner.

***WITHDRAWN OBJECTIONS***

2. The objection to the specification has been withdrawn due to the deletion of “(Z-y-t) > t” in the Amendment filed June 15, 2011.

***WITHDRAWN REJECTION***

3. The 35 USC 112, first paragraph, rejection of claims 1 and 2 has been withdrawn due to the deletion of “(Z-y-t) > t” in the Amendment filed June 15, 2011.

***NEW OBJECTION***

***Specification***

4. The amendment filed June 15, 2011 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the recitation “along a central axis” added to claim 1. See 35 U.S.C. 112, first paragraph, rejection of claims 1 and 2 made of record below.

Applicant is required to cancel the new matter in the reply to this Office Action.

***NEW REJECTIONS***

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1 and 2 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The recitation “along a central axis” added to claim 1 constitutes new matter. The scope of structures reasonably recited by “along a central axis” (which is a part of the claimed definition of Z) is broader than the scope of structures that is supported in the specification as originally filed. Fig. 1 of Applicant’s specification shows Z as the length of the mass in the direction shown (which is a particular relative to the shape of the second resin [relative to the “umbrella” shape]). The concept of more than one “central axis” is not supported in the specification as originally filed.

The use of “a” in “a central axis” strongly implies that there are more than one “central axis”. Note that this is reasonably possible, given that article is recited as a “molten resin mass”, and that the overall shape of the “molten resin mass” is not specified in the claim language: the geometrical relationships recited specify the structural relationship between the first and second resins, but not the overall shape of the “molten resin mass”. However, as stated above, this

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concept of more than one “central axis” is not supported in the specification as originally filed. See 35 U.S.C. 112, second paragraph, rejection of claims 1 and 2 for more discussion on what scope of structures “a central axis” may be interpreted to include.

Further note that the mass is not hollow, so there is no hollow portion in it that would have an axis running through it (for example, as Fig. 1 shows no hollow portion in the mass).

Claim 2 is rejected for the same reason that claim 1 is rejected since it depends upon claim 1.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation “along a central axis” added to claim 1 renders the claims indefinite because the scope of structures Applicant intends to recite cannot be ascertained. The use of “a” in “a central axis” strongly implies that there are more than one “central axis”. Note that this is reasonably possible, given that article is recited as a “molten resin mass”, and that the overall shape of the “molten resin mass” is not specified in the claim language: the geometrical relationships recited specify the structural relationship between the first and second resins, but not the overall shape of the “molten resin mass”.

The recitation “along a central axis” causes confusion because, since Z is shown in Fig. 1 as the total length of the mass in the vertical direction (as the mass is situated in Fig. 1), the

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length Z “total length along a central axis of the multilayered molten resin mass” could also reasonably include the length of the mass, as the mass is situated in Fig. 1, in the horizontal direction at the center of the mass (the length of the mass in the horizontal direction at a location halfway up the mass). Note that this horizontal length is different from the outer diameter D (see Fig.1), so the existence of D does not preclude the existence of a horizontal Z “along [the] central axis” of the mass in the horizontal direction (as it is situated in Fig. 1).

While it was clear what Z referred to (based on Fig. 1) prior to the addition of “along a central axis”, the recitation “along a central axis” introduces confusion into the claim language as discussed above, and the scope of structures that Applicant intends to recite (the scope of structures that fall within the claimed geometrical relationships) cannot be ascertained, because it cannot be ascertained how many “central ax[e]s” there are intended to be (so the metes and bounds of what distances qualify as Z cannot be ascertained).

Further note that the mass is not hollow, so there is no hollow portion in it that would have an axis running through it (for example, as Fig. 1 shows no hollow portion in the mass).

Claim 2 is rejected for the same reason that claim 1 is rejected since it depends upon claim 1.

### ***REPEATED REJECTIONS***

#### ***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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10. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu et al. (USPN 4,816,308).

In regard to claim 1, Shimizu et al. teaches a resin mass having structural characteristics that correspond to the structural limitations that are positively recited in claim 1. See, for example, Fig. 3, and alternatively, Fig. 4. In regard to the last four lines of the claim, Shimizu et al. teaches an interlayer having structure that corresponds to the claimed structure. Compare Fig. 3 of Shimizu et al. with Applicant's Fig. 1.

11. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Collette et al. (USPN 5,759,653).

In regard to claim 1, Collette et al. teaches a resin mass having structural characteristics that correspond to the structural limitations that are positively recited in claim 1. See, for example, Fig. 4, and alternatively, Fig. 5. In regard to the last four lines of the claim, Collette et al. teaches an interlayer having structure that corresponds to the claimed structure. Compare Fig. 4 and 5 of Collette et al. with Applicant's Fig. 1. Note that the second resin does not extend to the top of the resin mass shown in Fig. 4 and 5 of Collette et al.

In regard to claim 2, the recited distance of Collette et al. is 0 at the lowest point of the preform. See, for example, Fig. 4, and alternatively, Fig. 5.

12. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kuwabara et al. (JP 03-234604) (English abstract filed with IDS, English translation included with this Office Action).

In regard to claim 1, Kuwabara et al. teaches a resin mass having structural characteristics that correspond to the structural limitations that are positively recited in claim 1. See, for example, English abstract text, and Fig. 3E. Kuwabara et al. teaches an interlayer having structure that corresponds to the claimed structure. Compare figures of Kuwabara et al. with Applicant's Fig. 1 (note the top of interlayer of Kuwabara et al. on either side is curved).

### ***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. (USPN 4,816,308).

In regard to claim 2, Shimizu et al. teach the resin mass as discussed above in regard to claim 1. While Fig. 3 in particular appears to show a distance that corresponds to the claimed distance that is close to, if not about, 10%, Shimizu et al. teach that the relative amount of the



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resins A and B may vary widely and that it is desirable to achieve good transparency (col. 4, lines 37-57), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have varied the thickness of the bottom layer of resin A, such as to decrease its thickness in order to achieve the desired degree of transparency, depending on the particular desired end results, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art in the absence of unexpected results. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). MPEP 2144.05 II.B. Since Resin B is the barrier layer, minimizing the thickness of the layers of resin A will not substantially affect the barrier properties of the container from which the resin mass is formed if at all.

### ***Response to Arguments***

15. Applicant's arguments in regard to the 35 U.S.C. 102 rejections of the claims based on Shimizu et al. (USPN 4,816,308), Collette et al. (USPN 5,759,653) and Kuwabara et al. (JP 03-234604 and English abstract filed with IDS) made of record in the previous Office Action have been fully considered but are not persuasive.

Applicant argues that none of the references "teaches or suggest the amended recitations". Page 5 of Amendment filed June 15, 2011.

However, each of the references clearly anticipate claim 1 (and claim 2 in the case of Collette et al., USPN 5,759,653) for the reasons previously of record and repeated in this Office Action. As stated in the previous rejections of record (and above), compare Applicant's Fig. 1 with the relevant Figures in each reference (as cited in the previous rejections of record [and above]).

Examiner notes, as stated above in the 35 U.S.C. 112, second paragraph, rejection, the recitation “along a central axis” added to claim 1 introduces potential confusion into the determination of the scope of structures intended to be delineated by the language of claim 1. Fig. 1 of Applicant's specification showed the particular dimension meant by the claim term “Z”, so the addition of “along a central axis” does not affect the bases of rejection of record in the previous Office Action. As explained above, the addition of “along a central axis” introduces potential confusion into the determination of what is meant by the claim term “Z”.

Examiner also reiterates the response to Applicant's arguments made of record in the previous Amendment:

All references cited in the rejections anticipate the claimed molten resin mass. Applicant argues that the references do not teach molten resin masses because they teach preforms... during the process of forming the preforms taught by Shimizu et al. (USPN 4,816,308), Collette et al. (USPN 5,759,653) and Kuwabara et al. (Fig. 3D), the resin mass that ultimately is solidified into the preform is a molten resin mass having the structural characteristics that are recited in claim 1 (and 2, as identified above). A molten resin mass in the shape of the preform (and having components having the claimed structural features) is necessarily an intermediate product in the process of the formation of the preform. Before the preform solidifies into a preform, it is a molten resin mass in the shape of a preform (having components having the claimed structural features). For example, note that Kuwabara et al. show various stages of forming the resin molten mass into a preform (a solidified, preform in final form) in Fig. 3A-3E. Therefore, if the components of the preform have structural features that correspond to the claimed structural features, a molten resin mass having those same structural features necessarily existed during the process of formation of the preform. This is why a comparison between the preforms of the art and the claimed molten resin mass is appropriate....

Page 7 of Office Action mailed March 21, 2011.

Furthermore, note that a full English translation of JP 03-234604 has been included with this Office Action. Further note, for example, in the last paragraph on page 34 of the translation that the item shown in Fig. 3A-3E is described as a molten resin (so a molten resin mass) in the

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process of being transferred to the mold and being compression molded. Examiner reiterates the statement block quoted above, including that Before the preform solidifies into a preform, it is a molten resin mass in the shape of a preform (having components having the claimed structural features).

### *Conclusion*

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number is (571) 272-1488. The examiner can normally be reached on Monday-Thursday from 9:00am to 7:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WALTER B AUGHENBAUGH/

Primary Examiner, Art Unit 1782

8/9/11